

**BOARD-PATTERN PRACTICE PAPER · CBSE CLASS 9**

# Matter in Our Surroundings

Science · Chapter 1 · Matches current CBSE blueprint · Each question PYQ-sourced where indicated

DATE	TOTAL MARKS	DURATION	MARKING	TARGET
_____	<b>30</b>	<b>60 min</b>	<b>As per board</b>	<b>≥ 24/30</b>

**GENERAL INSTRUCTIONS**

- All questions are compulsory.
- Section A: 4 one-mark questions. Section B: 3 two-mark questions. Section C: 3 three-mark questions. Section D: 2 case-study / long-answer questions.
- Draw neat, labelled diagrams wherever required (particle arrangement, heating curve).
- For temperature conversions, show the working:  $K = ^\circ C + 273$ .
- Reasoning questions ('why') require a particle-model explanation for full marks, not just a statement.

**Section A — Very Short Answer (1 mark each, 4 Qs)**

**4 MARKS · 8 MIN**

- Q1.** Convert 30 °C into the Kelvin scale. [PYQ 2020 CBSE SQP] **[1 mark]**
- Q2.** Name the process by which a solid changes directly into vapour without becoming a liquid. [PYQ 2021 CBSE SQP] **[1 mark]**
- Q3.** Why is evaporation called a surface phenomenon? [PYQ 2022 Annual exam bank] **[1 mark]**
- Q4.** State the latent heat of fusion in one line. [PYQ 2019 CBSE SQP] **[1 mark]**

**Section B — Short Answer I (2 marks each, 3 Qs)**

**6 MARKS · 12 MIN**

- Q5.** State any two factors that affect the rate of evaporation and explain how each affects it. [PYQ 2019 CBSE SQP] **[2 marks]**
- Q6.** Why does the temperature of water remain constant while it is boiling, even though heat is supplied continuously? [PYQ 2022 CBSE SQP] **[2 marks]**
- Q7.** Distinguish between a liquid and a gas on the basis of any two properties. [PYQ 2021 Annual exam bank] **[2 marks]**

**Section C — Short Answer II (3 marks each, 3 Qs)**

**9 MARKS · 20 MIN**

- Q8.** Explain why evaporation causes cooling. Support your answer with one everyday example. [PYQ 2021 CBSE SQP] **[3 marks]**
- Q9.** Compare the three states of matter — solid, liquid and gas — on the basis of shape, volume and compressibility. Give one example of each. [PYQ 2023 CBSE SQP] **[3 marks]**
- Q10.** (a) Convert 373 K into degrees Celsius. (b) What change of state occurs at this temperature for water? (c) Define latent heat of vaporisation. [PYQ 2020 Annual exam bank] **[3 marks]**

**Section D — Case Study / Long Answer (4-5 marks each, 2 Qs)**

**11 MARKS · 20 MIN**

- Q11.** Read the passage and answer: On a hot summer afternoon, Riya sprinkled water on the terrace floor and noticed it felt cooler within minutes. Her grandmother stores drinking water in an earthen pot (matka) which stays cool all day, and the family wears loose cotton clothes. (a) Name the phenomenon responsible for the cooling in all three cases. (b) Explain, using the particle model, why this phenomenon causes cooling. (c) State two factors that would make the sprinkled water evaporate faster. (d) Why is cotton clothing chosen in summer? [PYQ 2022 CBSE SQP] **[5 marks]**
- Q12.** (a) Draw a labelled diagram showing the arrangement of particles in solids, liquids and gases. (b) Using this arrangement, explain why solids have a fixed shape but gases fill the whole container. (c) Explain why a burn caused by steam is more severe than a burn caused by boiling water at the same temperature. (d) Name the SI unit of temperature and convert 0 °C into it. [PYQ 2023 CBSE SQP] **[6 marks]**

**Marking scheme & model answers** — see companion Answer Key PDF · all PYQs traceable to actual CBSE papers · readyforboards.com · +91 70330 05444